(No Model.) 2 Sheets—Sheet 1.

# T. O. POTTER.

## SUSPENDERS.

No. 280,859. Patented July 10, 1883.

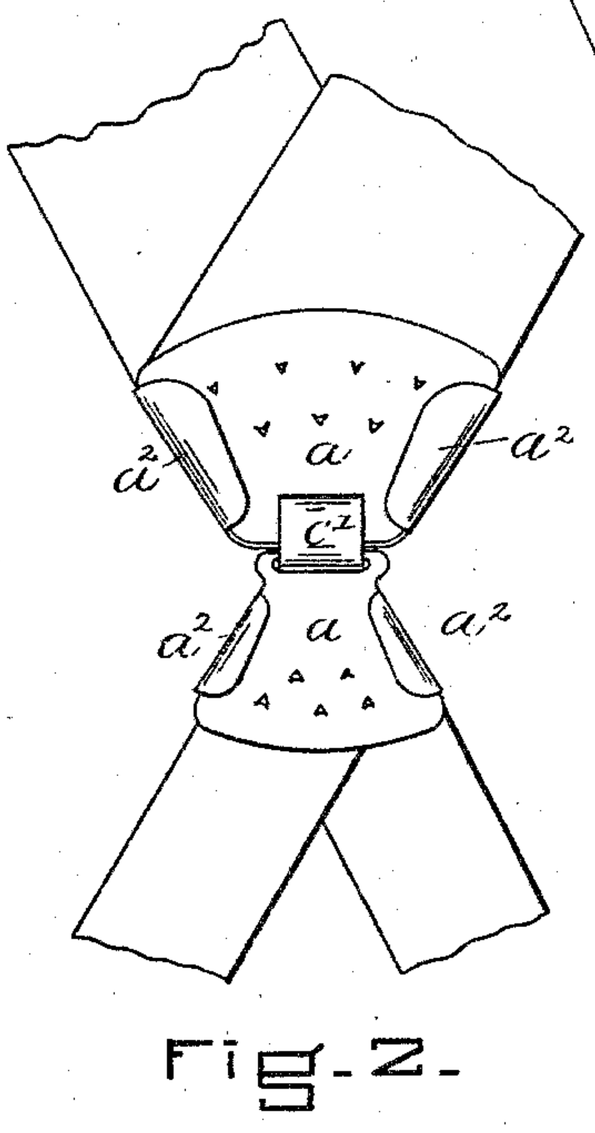



Fig. 2.

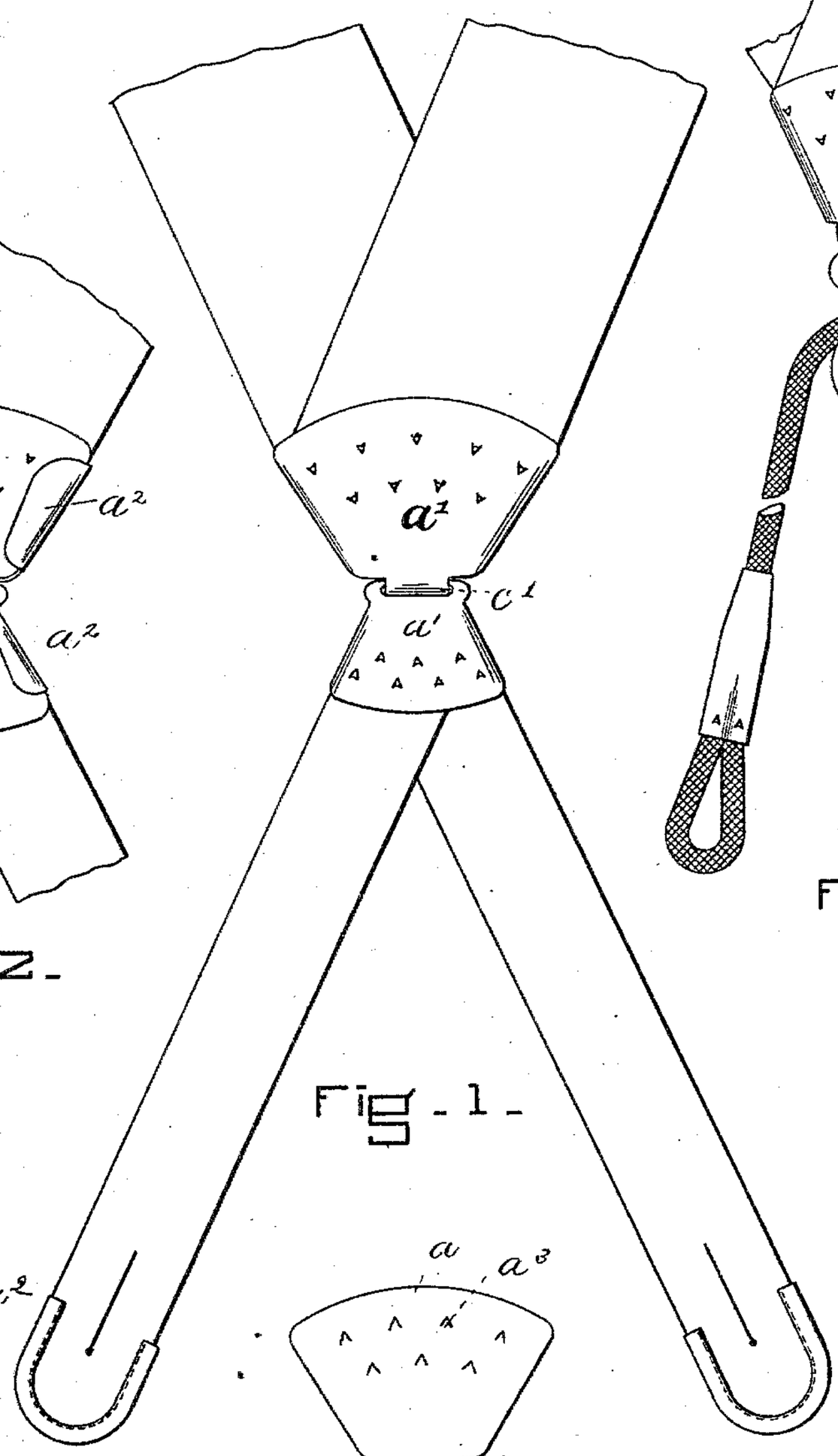



Fig. 1.

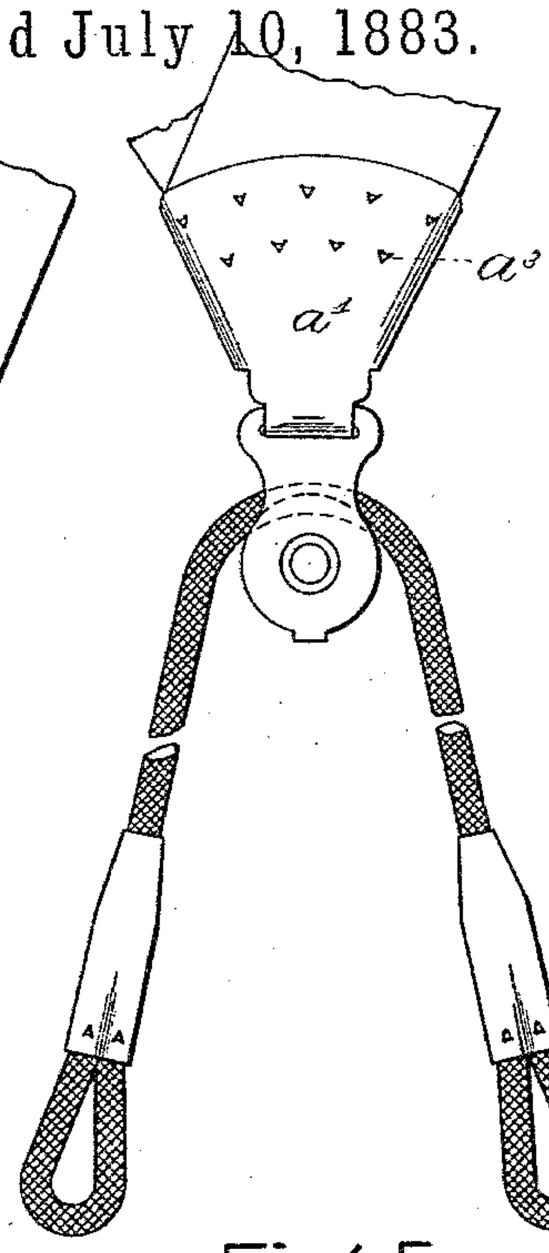



Fig. 5.

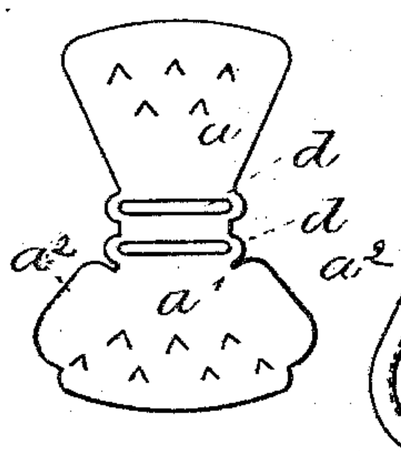



Fig. 4.

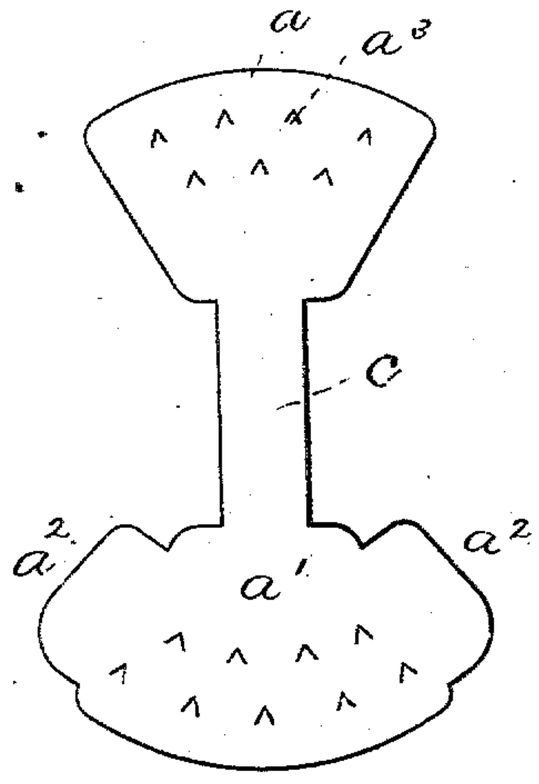



Fig. 3

WITNESSES
Willard L. Frogg
Fred. Harris

INVENTOR
Thos. O. Potter
by his attys
Clarke & Raymond

(No Model.) 2 Sheets—Sheet 2.

# T. O. POTTER.

## SUSPENDERS.

No. 280,859. Patented July 10, 1883.

Fig. 8.

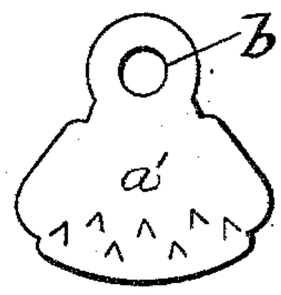



Fig. 9.

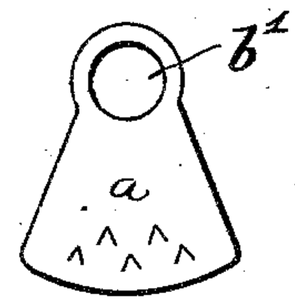



Fig. 6.

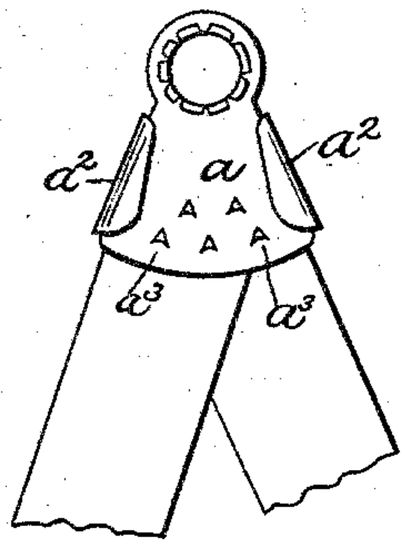
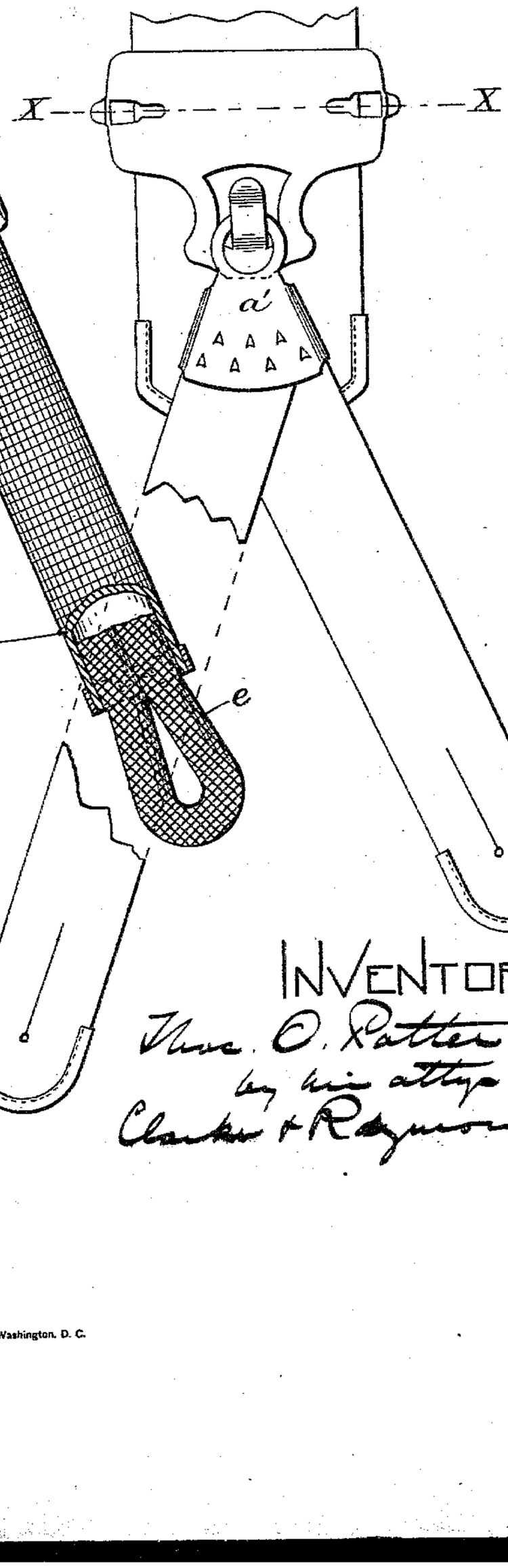



Fig. 7.


Fig. 10.




WITNESSES

George R. Tolman

Fred. Harris

INVENTOR

Thos. O. Potter

by his attys

Clarke & Raymond

# UNITED STATES PATENT OFFICE.

THOMAS O. POTTER, OF BOSTON, MASSACHUSETTS.

## SUSPENDERS.

SPECIFICATION forming part of Letters Patent No. 280,859, dated July 10, 1883.

Application filed June 7, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS O. POTTER, of Boston, in the county of Suffolk and State of Massachusetts, have invented a certain new and useful Improvement in Suspenders, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

This invention comprises, first, an improvement in means for fastening the continuous ends of two straps or pieces of webbing together—such, for instance, as the ends of two shoulder-straps—at the back or meeting ends of the button-straps; second, an improvement in the manufacture of button-straps, consisting, essentially, in forming a button-hole of cord or like solid material and uniting it to a tubular strap, substantially as and for the purposes hereinafter explained.

Referring to the drawings, in which like letters indicate corresponding parts, Figure 1 is an elevation of the back portion of a pair of suspenders containing the fastening-clamp for securing the ends of the main straps and button-straps together and to each other. Fig. 2 is a front elevation thereof. Fig. 3 is a plan of one of the blanks which I use in making the clamp. Fig. 4 is a plan of another form of clamp blank which I employ. Fig. 5 represents a construction that is employed when cord-button ends are used. Fig. 6 is a view in elevation of another form of my improved fastening. Fig. 7 is a view in elevation of the button-straps with a portion broken out to represent the construction of the corded button-hole and tubular strap. Figs. 8 and 9 are plans of the fastening devices which are shown together in Figs. 6 and 7. Fig. 10 is a back view of the fastening device for the button-straps, as represented in Fig. 7, front view.

As certain parts of the suspenders are made to be detached from other parts—namely, the main straps from the front and side button-straps—and others are permanently united—for instance, the main straps to the back button-straps—it is necessary in working out the first part of my invention, or that which relates to the means of clamping or securing the ends of the straps together, to embody it in various forms for the various purposes to which it may be put. Therefore in Figs. 1 and 2 a construction is shown for the back portion of the suspender, or those parts which are permanently united. Fig. 5 shows a construction of like parts where cord is used instead of straps of webbing. Figs. 6 and 7 and 10 represent a construction employed when the straps are detachable one from the other.

The clamping device, or means for securing the ends of the straps together, consists, essentially, of plates which may have a connecting portion and form one blank, as shown in Fig. 3, or may be made separate, as shown in Figs. 8 and 9. Whether the two parts of the fastening device be separated or connected, it comprises the plate $a$, whose edges are substantially parallel with the outer edge of the two converging straps with which it is used, and the plate $a'$, which has side wings or extensions, $a^2$, in shape to correspond to the plate, the side wings or extensions being adapted to be bent over the sides of the portion $a$ upon the under surface thereof, as shown in Fig. 2, in locking the two plates and strap ends together. The parts $a$ $a'$ are further provided with spurs or points $a^3$, which are formed by striking down, punching, or cutting from the metal itself; and these spurs or points are compressed into the material or straps in the act of applying the clamps. Of course, if the two portions of the clamping device $a$ $a'$ are not made from one blank, it is necessary to secure them together in some other way, either by one or more eyelets or rivets passing through them or by making one part with a portion that can be struck up and bent about the other to lock it in position, for if this were not done where the two are made single, and on account of their shape, they would not be held together; and in Fig. 8 I have shown one portion of the clamping device provided with the small hole $b$, and in Fig. 9 the other part of the device provided with the large hole $b'$, and the excess of material in the part having the small hole is struck down through the large hole $b'$ and turned over upon the other side, substantially as shown in Fig. 6.

For uniting the main strap and back-portion straps the blank shown in Fig. 3 is preferably used, and the connecting portion $c$ is bent upon itself to form the hook $c'$. If, however, the

two parts be made separate, the hooked portions can be united by a rivet or eyelet.

Fig. 4 represents the clamping device applied to the lower back button-straps, and, instead of having a hook, its two plates are provided with recesses *d d*, which extend across the same, which, when the plates are brought in line, come in line with each other and form a hole, through which the hook is passed, as shown in Fig. 2.

In applying the device the ends of the suspenders are brought together upon the proper angle and laid upon the upper surface of the plate *a* and pressed solidly in place, this operation causing the points or spurs of both plates to be firmly embedded in the material of the straps. The wings $a^2$ are nicely closed down over and upon the plate *a'*, inclosing the strap ends and edges between the plates. The two plates are or may be further united by rivets, eyelets, or prongs, as hereinbefore explained, and if it is the part *c*, such part is then or previously bent to form the hook, the whole device being solidly pressed together, uniting the plates and securing the straps.

This device, it will be observed, covers not only the contiguous ends of the overlapping straps, but the edges as well, thus giving a secure and neat appearance.

When silk or an expensive material is used for the suspender ends or bottom straps, I prefer the construction shown in Fig. 7, in which *e* is a button-hole formed of cord, the ends of which are brought together and inserted into the end of the tubular strap *e'*, and are secured thereto by sewing and by means of the clamp $e^3$. A metallic band or strap is provided having spurs $e^4$ struck down therefrom, which are adapted to be pressed into the material. The said band or strap also acts to conceal the union between the button-hole and the tubular strap. The advantage of this construction is that the tubular strap is cheaper than the corded strap, so that if, for instance, silk were used quite a saving would be made by substituting for the ordinary corded end, of which only the button-hole in this case is made, the tubular strap, there being less silk in a given length of tubular strap than in the same length of corded strap.

Having now described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A suspender-end consisting of the tubular straps *e'*, connected with the buckle by an intermediate clasping or fastening device, in combination with the cord-loops *e*, secured to the lower end of the tubular straps by a suitable clamping device adapted to securely unite and hold the parts together and to conceal the jointed ends, all substantially as and for the purposes set forth.

2. In suspenders, the tubular strap *e'*, with corded ends united by a clasping device, and provided with inwardly-projecting studs formed upon each face of the clasping-plate, the upper extremity of the tubular part being lapped, secured, and concealed by the slotted, hooked, or open-ended metal fastening device, formed of the plate *a a'*, each provided with inwardly-projecting prongs or spurs, the ends of said prongs being concealed when united, all formed, arranged, and combined substantially as and for the purposes set forth.

3. In a suspender, a fastening device consisting of the plate *a*, with holes *b'*, the plate *a'*, with holes *b*, and wings $a^2$, each plate provided with inwardly-projecting prongs or spurs $a^3$, and adapted to be united, as and for the purposes specified.

4. A suspender-fastening device consisting of the metal plates *a a*, provided with inwardly-projecting prongs upon the face of the plates, and the overlapping plates *a' a'*, also provided with inwardly-projecting prongs upon the face of the plates, and with wings $a^2$ $a^2$, the sets of plates to be suitably united to each other, and each set adapted to secure and conceal one or more ends of a suspender strap or straps, all combined substantially as and for the purposes set forth.

THOMAS O. POTTER.

Witnesses:
F. F. RAYMOND, 2d,
WILLARD C. FOGG.